

Micro-grid Project in Japan

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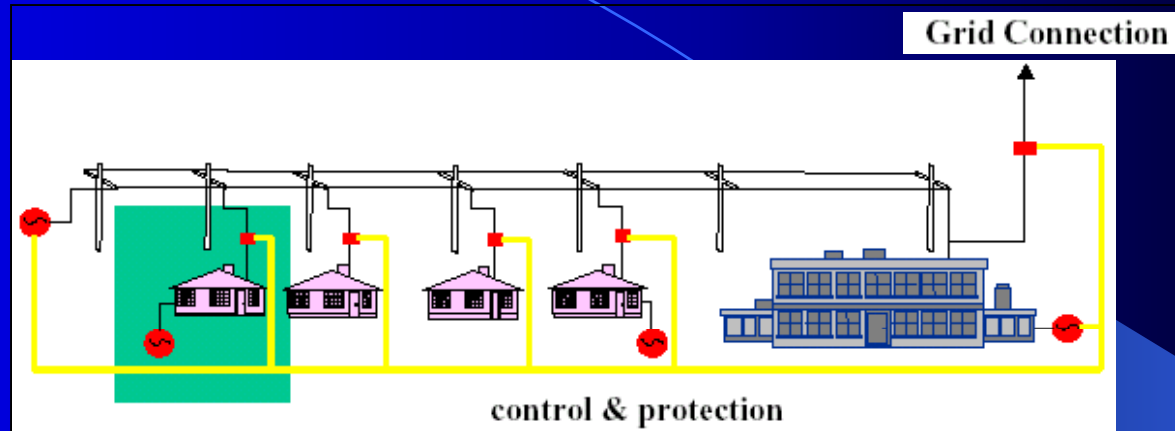
- Characteristic of electric utility in Japan
- FRIENDS
- Demand side Power System
- H2Supply Project in Hokkaido Hachinohe Project

Characteristic of electric utility in Japan

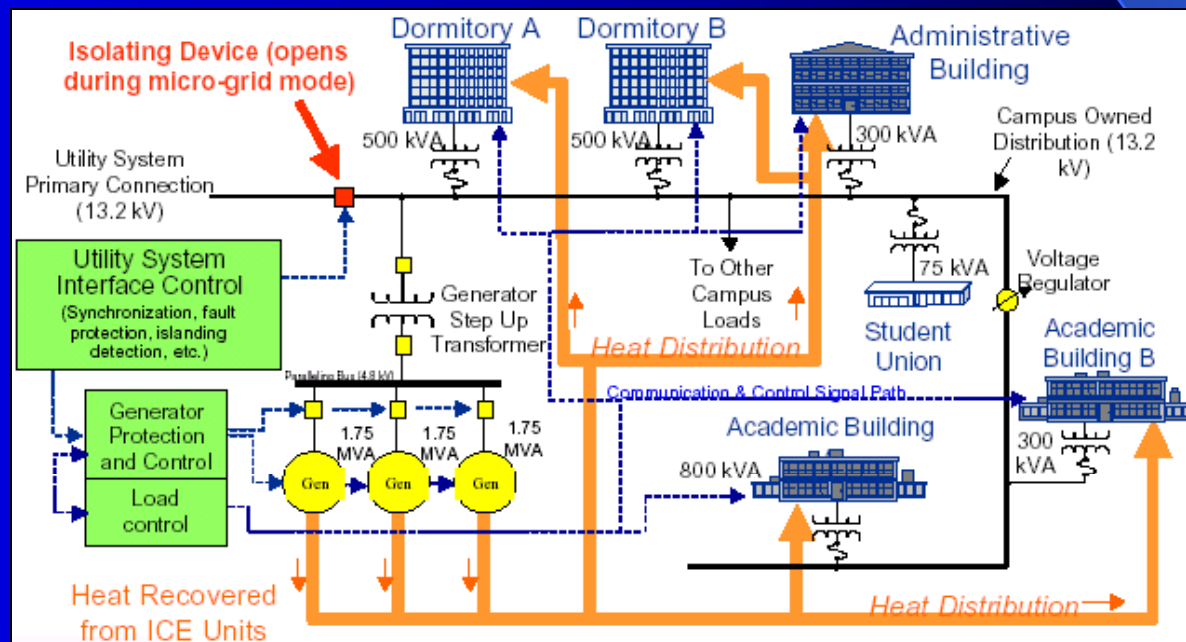
- High Reliability (annual duration of outage is 4minutes)
- Stable (Voltage,Frequency)
- Installation of renewable energy(WP,PV)

Examples of Micro-grid

GE

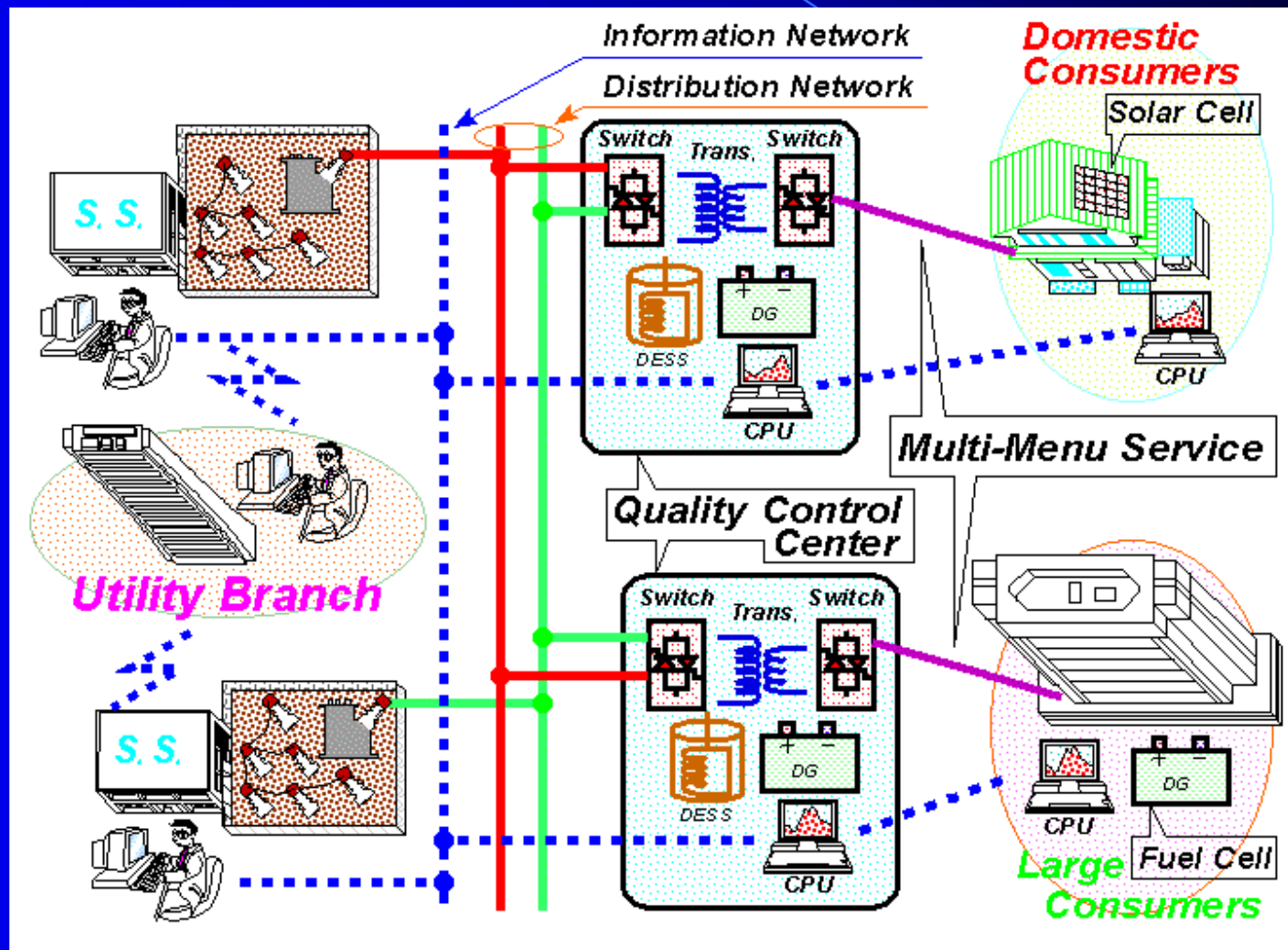


EPRI



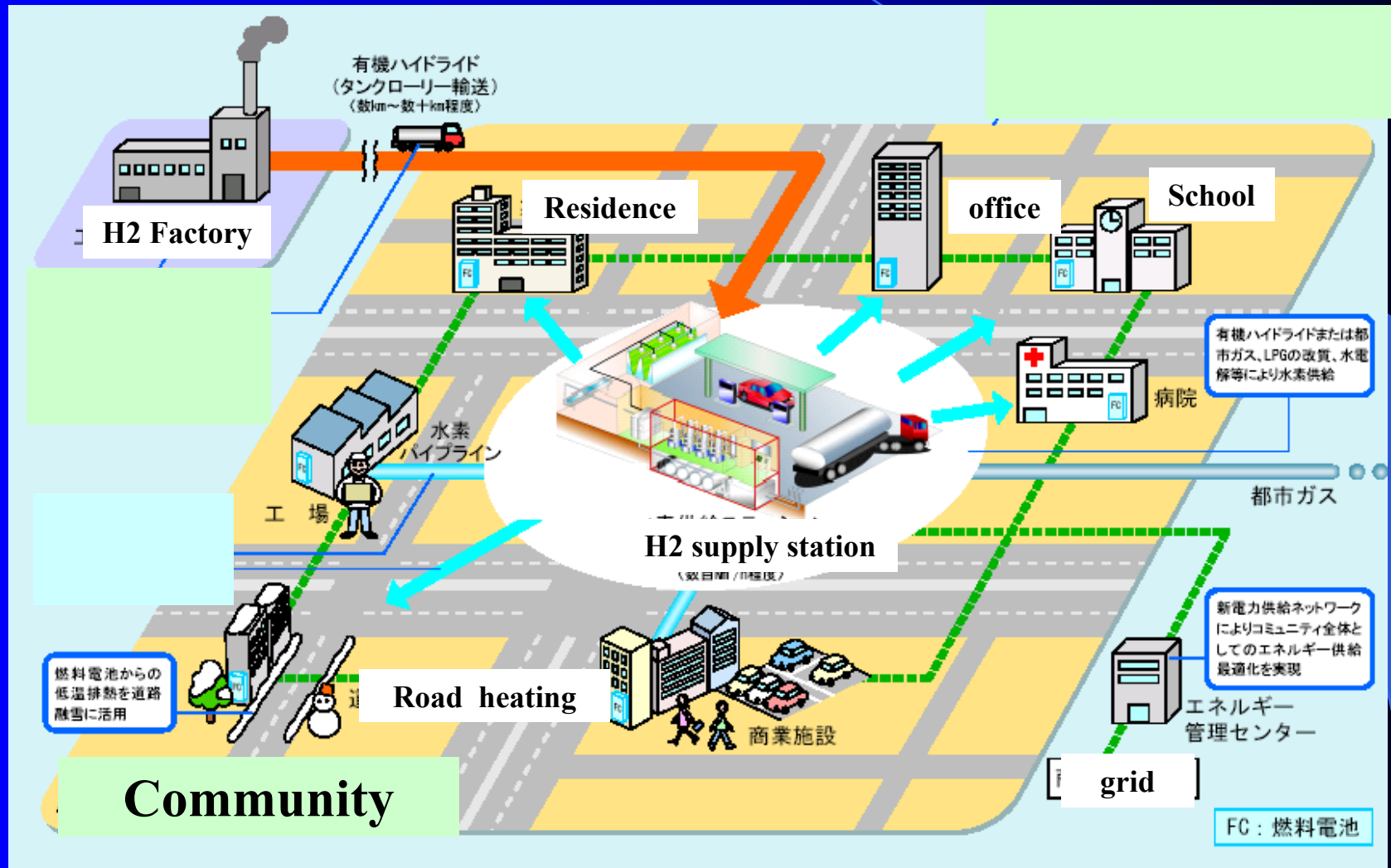
FRIENDS

(Flexible Reliable and Intelligent Energy Delivery System)

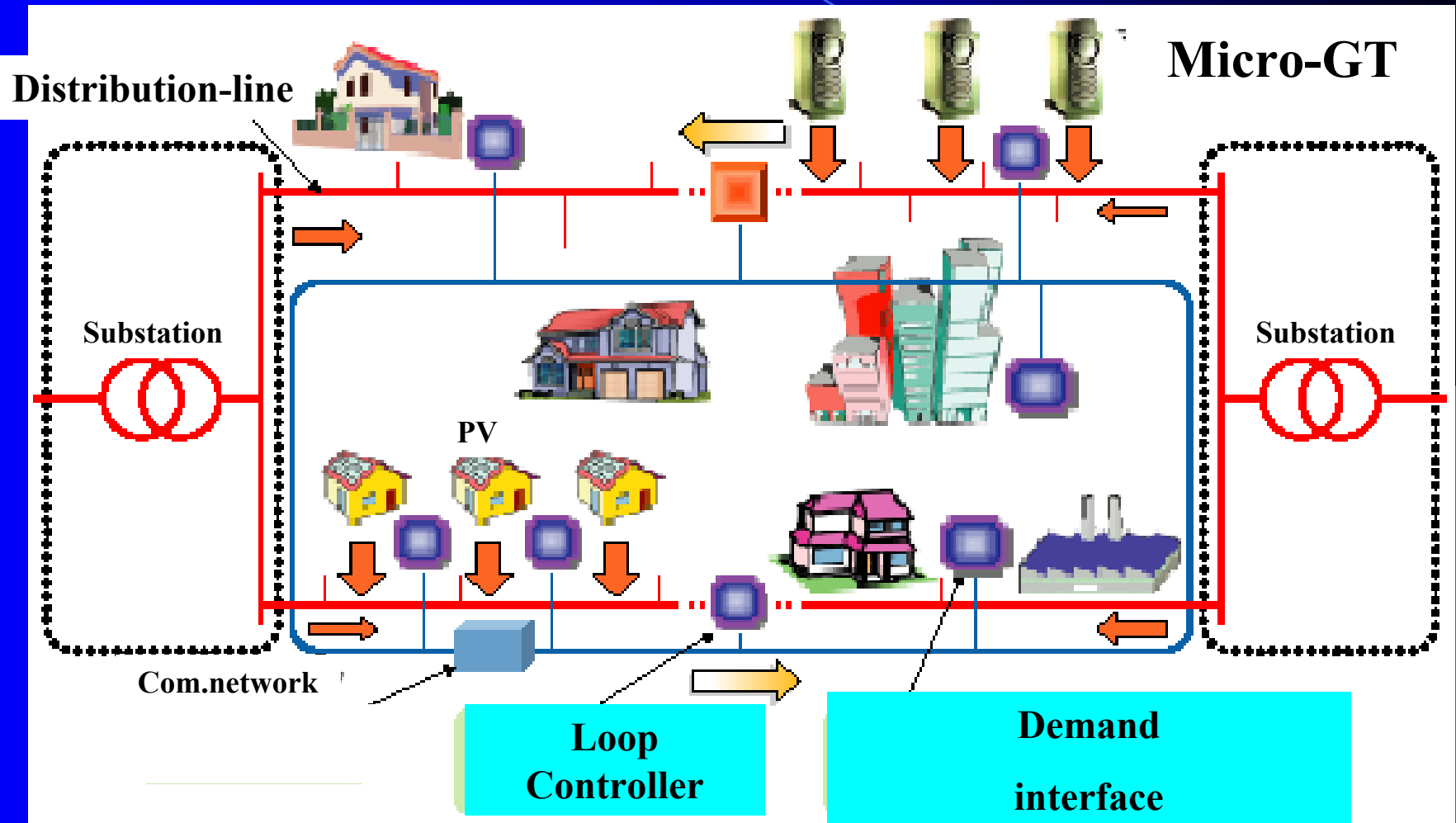


H2Supply Project in Hokkaido

FRIENDS

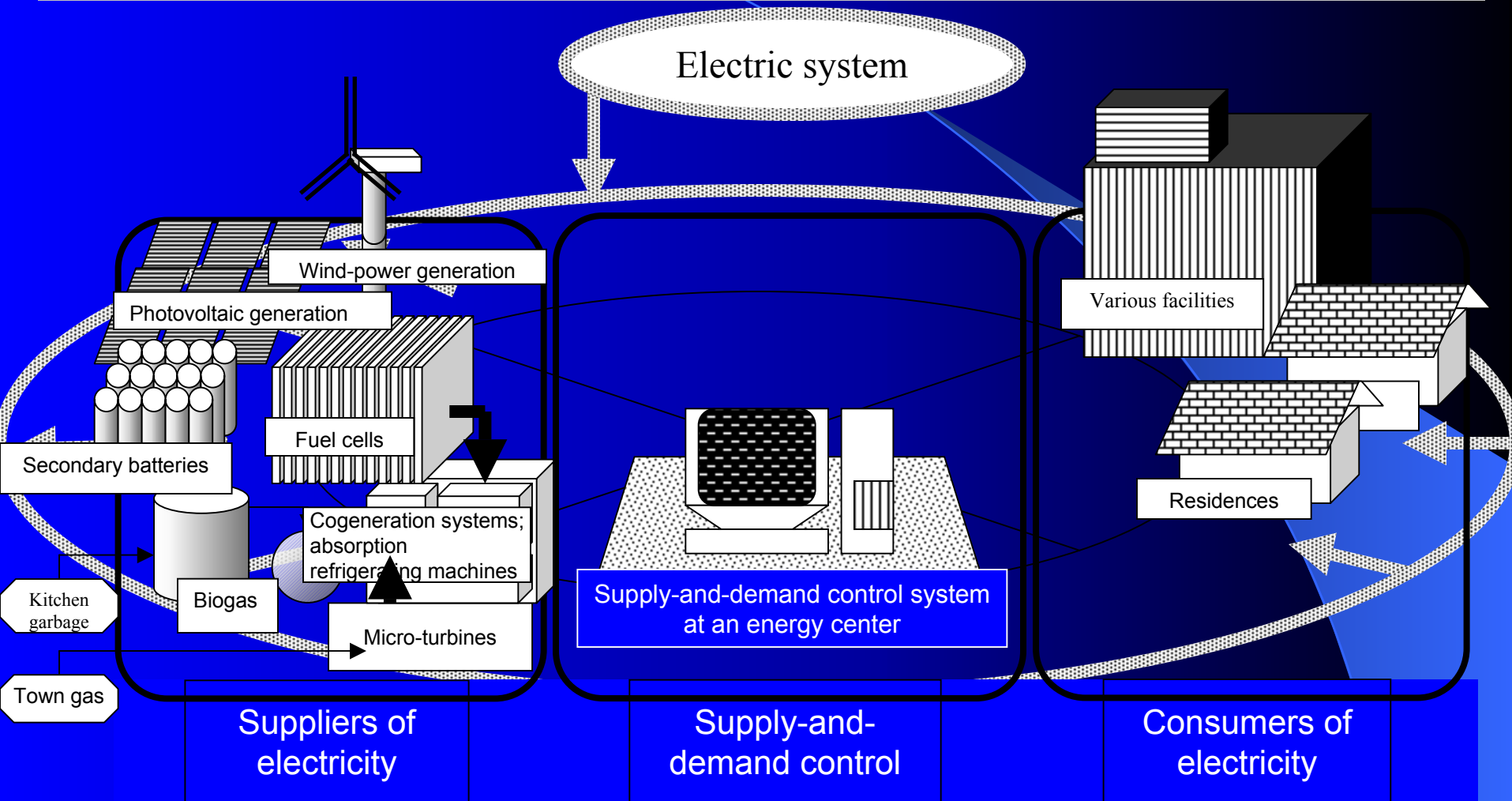


Demand side area power system



Demonstrative Research into Regionally Combined New Energies

Conceptual Diagram of the System



Demonstrative Research into Regionally Combined New Energies

□ Characteristics □

- Consists of various kinds of demands such as residences, offices
- Real demand (not model)
- Information network links electricity suppliers , thermal suppliers and consumers
- Control the electric & thermal supply for the change of renewable energy & demands
- FC,GT,GE,Electricity Storage

Configuration

